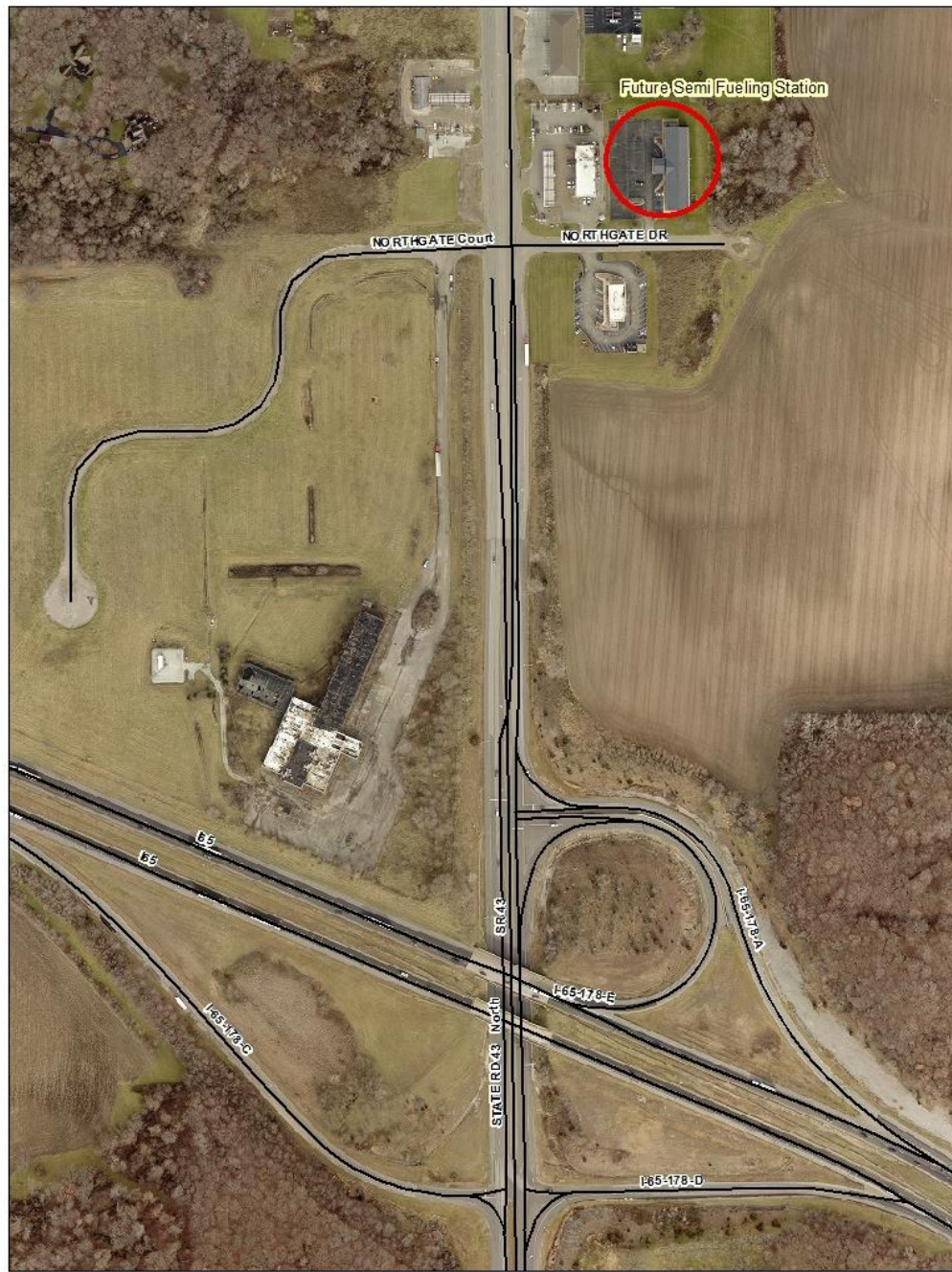


# Pre-Construction Road Safety Audit

Northgate Drive and State Road 43 Intersection  
Area Plan Commission of Tippecanoe County  
January 2017



## Pre-Construction Road Safety Audit Team

### Team Members:

Rick Drumm, Safety Engineer, FHWA  
Gary Bowser, Traffic Engineer, INDOT Crawfordsville District  
Rick Freije, Traffic Investigations Engineer, INDOT Crawfordsville District  
Mike Spencer, Assistant Director, Tippecanoe County Highway Department  
Doug Poad, Senior Transportation Planner, APC/MPO  
Steve Egly, Battleground Town Council  
Laura Slusher, HELPERS Project Manager, LTAP  
Tom McKee, District Commander, Indiana State Police  
Brian Sterner, Captain, Tippecanoe County Sherriff's Department  
Eric Carter, Project Manager, Weihe Engineers  
Peter DeFour, Project Manager, Speedway

### Resource Personnel:

Sallie Fahey, Executive Director, APC/MPO  
John Thomas, Assistant Director of Transportation Planning, APC/MPO  
Tim Stroshine, Transportation Planner, APC/MPO



The RSA Team

## Table of Contents

---

Existing Conditions	3
Historical Access Permit Information	5
Crash Information	6
Land Use Information	13
Safety Audit Observations	15
Safety Audit Recommendations	17
Other Comments by Safety Audit Team	19
Safety Audit Field Pictures	20
Appendix 1: Access Control Rough Sketch	34
Appendix 2: Field Prompt Sheet	36
Appendix 3: Speedway's Response to Audit	38

*This document has been financed in part through a grant from the Federal Highway Administration. The contents of this report do not necessarily reflect the official views or policies of the US Department of Transportation.*

***This Document is protected under the provisions of Title 23 United States Code Section 409 as follows:***  
***Discovery and admission of evidence of certain reports and surveys.*** Notwithstanding any other provision of law, reports, surveys, schedules, lists of data compiled or collected for the purpose of identifying, evaluating or planning the safety enhancement of potential accident sites, hazardous roadway conditions, or railway-highway crossings, pursuant to sections 130, 144 and 148 of this title or for the purpose of developing any highway safety construction improvement project which may be implemented utilizing Federal-aid highway funds shall not be subject to discovery or admitted into evidence in a Federal or State court proceedings or considered for other purposes in any action for damages arising from any occurrence at a location mentioned or addressed in such reports, surveys, schedules, lists or data.

## Existing Conditions

**State Road 43** is classified as an urban primary arterial in the *Thoroughfare Plan*. It is classified as a principal arterial in the functional classification scheme used by the Federal Highway Administration. It is also part of the National Highway System. State Road 43 carries traffic north and south, and provides access to many businesses. It is also one of four roads in Tippecanoe County with an interchange to Interstate 65.

From Interstate 65 north to County Road 600 N, State Road 43 increases in elevation by about 20 feet. The distance from the interchange onto State Road 43 to County Road 600 N is about 2,000 feet. South of the site, changes in elevation between the road surface and surrounding land are notable. Near driveways to businesses, the changes in elevation are not as notable.

In this area, State Road 43 has paved shoulders with a curb and gutter cross-section. There are no sidewalks, trails, bicycle lanes, or other pedestrian/bicycle infrastructure. There are “No Parking” signs along State Road 43.

**Northgate Drive** is classified as an urban local road in the *Thoroughfare Plan*. It was constructed in 1995 with a right-of-way width of 70 feet and a pavement width of 37 feet. It serves the existing Speedway, Wendy’s, and Econo Lodge on the east side of State Road 43. It currently has three driveways, one for each of those businesses. The Econo Lodge will be redeveloped into a new commercial fueling station for trucks, a Speedway expansion. With the proposed redevelopment, there will still be three driveways. Northgate Drive is a very short road, with a length of only about 450 feet from its intersection with State Road 43 to a dead end. However, as land farther east develops commercially, Northgate Drive will be extended to serve those lots.

Northgate Drive runs due east and west. Based on elevation contours, there appears to be a slight increase in elevation from its intersection with State Road 43 to the temporary dead end. This road is owned by the Town of Battleground.

In this area, Northgate Drive has a curb and gutter cross-section. There are no visible lane or shoulder markings on Northgate drive. There are no sidewalks, trails, bicycle lanes, or other pedestrian/bicycle infrastructure. There are no marked parking spaces along Northgate Drive.

**The intersection of State Road 43 and Northgate Drive** is controlled by a stop sign on Northgate Drive. There is no traffic control on State Road 43 at this intersection. The cross-section of State Road 43 in this area consists of two through lanes, two right turn lanes, and a center-left-turn lane. This area has a posted speed limit of 45 mph. Northgate Drive does not have any marked lanes nor a painted stop bar. The intersection is at the bottom of a noticeable dip in elevation on State Road 43, which rises in elevation both north and south of the intersection. There is local access on both the north and south sides of Northgate Drive. This means that Northgate Drive serves traffic traveling in two directions (east and west).



Study Area Vicinity Aerial View



## Historical Access Permit Information

- At the 5/18/1994 Technical Transportation Committee meeting, a proposed access permit on the east side of State Road 43 north of Interstate 65 (at this site) was presented. The meeting minutes state: "Discussion concerning left turns ensued. Mr. Boehning advised the Committee that he had developed the proposal to minimize left turn conflicts in the intersection. Steve Murray stated that the improvement would lessen risk to traffic."
- At the 6/15/1994 Technical Transportation Committee meeting, plans for the aforementioned permits were distributed to the committee. The meeting minutes indicate that any issues the committee had raised previously had been resolved.
- At the 5/17/1995 Technical Transportation Committee meeting, a motion was passed to approve an access permit for a McDonald's restaurant at the southwest corner of State Road 43 and County Road 600 N, just north of the interstate. Traffic study information was presented to the committee members in advance of the meeting. The minutes of this meeting indicate that the committee recommended that the best design for this McDonald's site would restrict left turns out of the site.
- At the 10/18/1995 Technical Transportation Committee meeting, a proposal for access on Northgate Drive for this site was brought to the committee. The minutes state: "Steve Murray brought the Northgate Drive entrance and a Lot 1 proposal on SR 43 North to the Committee. He stated that a drive to this lot off of Northgate ought to have its entrance within 10 ft. of the east property line to be as far away from the intersection with SR 43 as possible." The minutes further indicate that this position was supported by the committee.

## Crash Information

Fifteen crashes occurred near the intersection of Northgate Drive and State Road 43 between January 2011 and December 2015. There were no pedestrians or bicyclists involved in these crashes, but there was one motorcyclist involved. Three of the crashes had one injury each. There were no fatalities.

One common factor in the reported crashes is that nine of the fifteen crashes (60%) occurred when it was daylight. By contrast, only five crashes (33.3%) occurred when it was dark and only one (6.7%) occurred when it was either dawn or dusk.

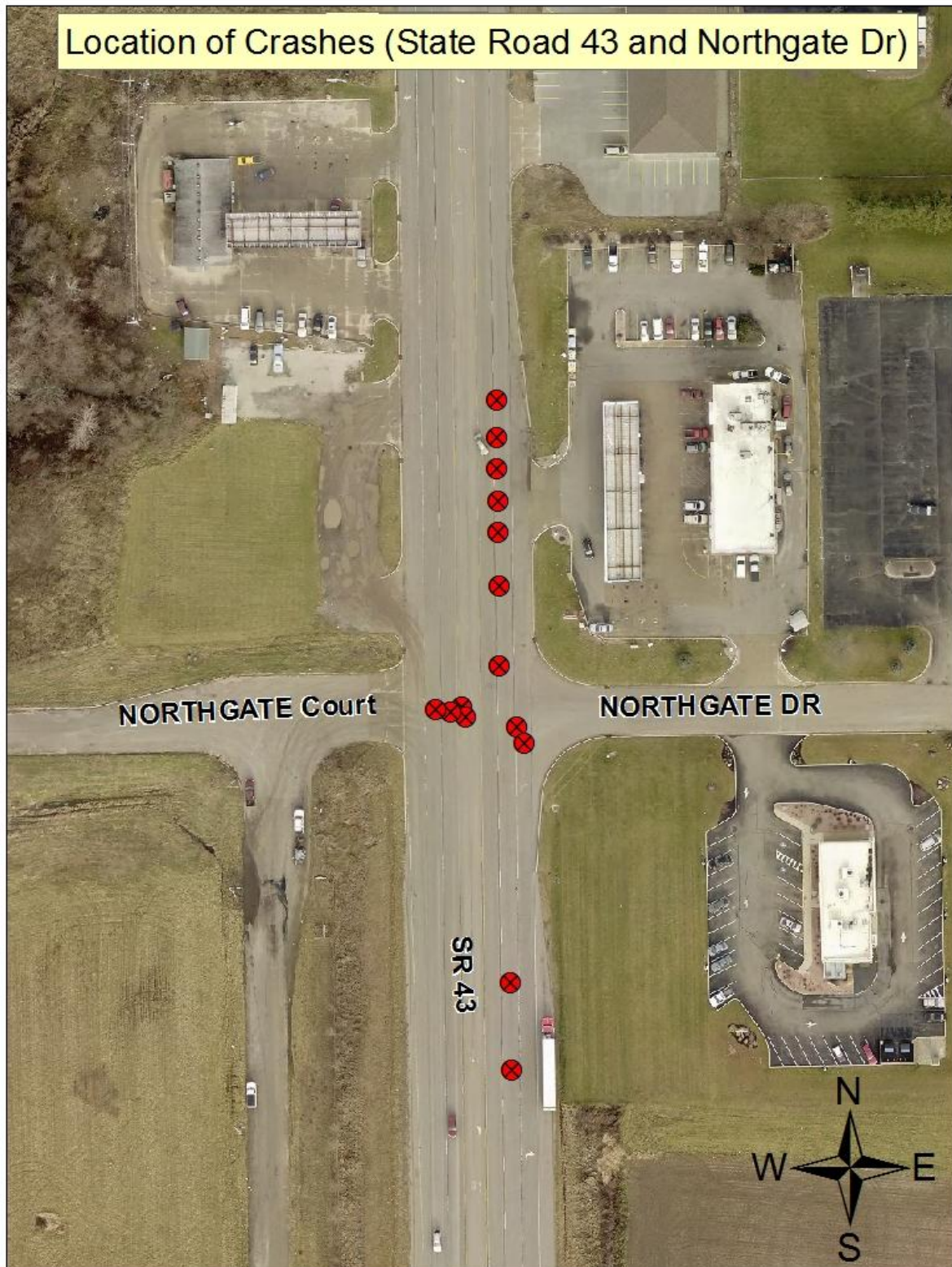
The majority of crashes occurred when it was clear (12 crashes or 80%) and when the pavement was dry (12 crashes or 80%). Two of the crashes occurred when it was raining, and one occurred when it was cloudy. Three of the crashes occurred when the pavement was wet.

Of the different types of crashes reported, six of them (40%) were right angle collisions and three (20%) were left turn collisions. Additionally, two (13.3%) were classified as left/right turn collisions. The crash reports also showed that there was one each of the following manners of collision: collision with deer, head on, head on between two motor vehicles, and other-explain in narrative.

There were four different primary factors in the crash reports. The most common primary factor was failure to yield right of way with eleven crashes (73.3%). There were two crashes where the primary factor was listed as animal in the roadway, one where the primary factor was listed as other (driver), and one where the primary factor was listed as other (environmental).

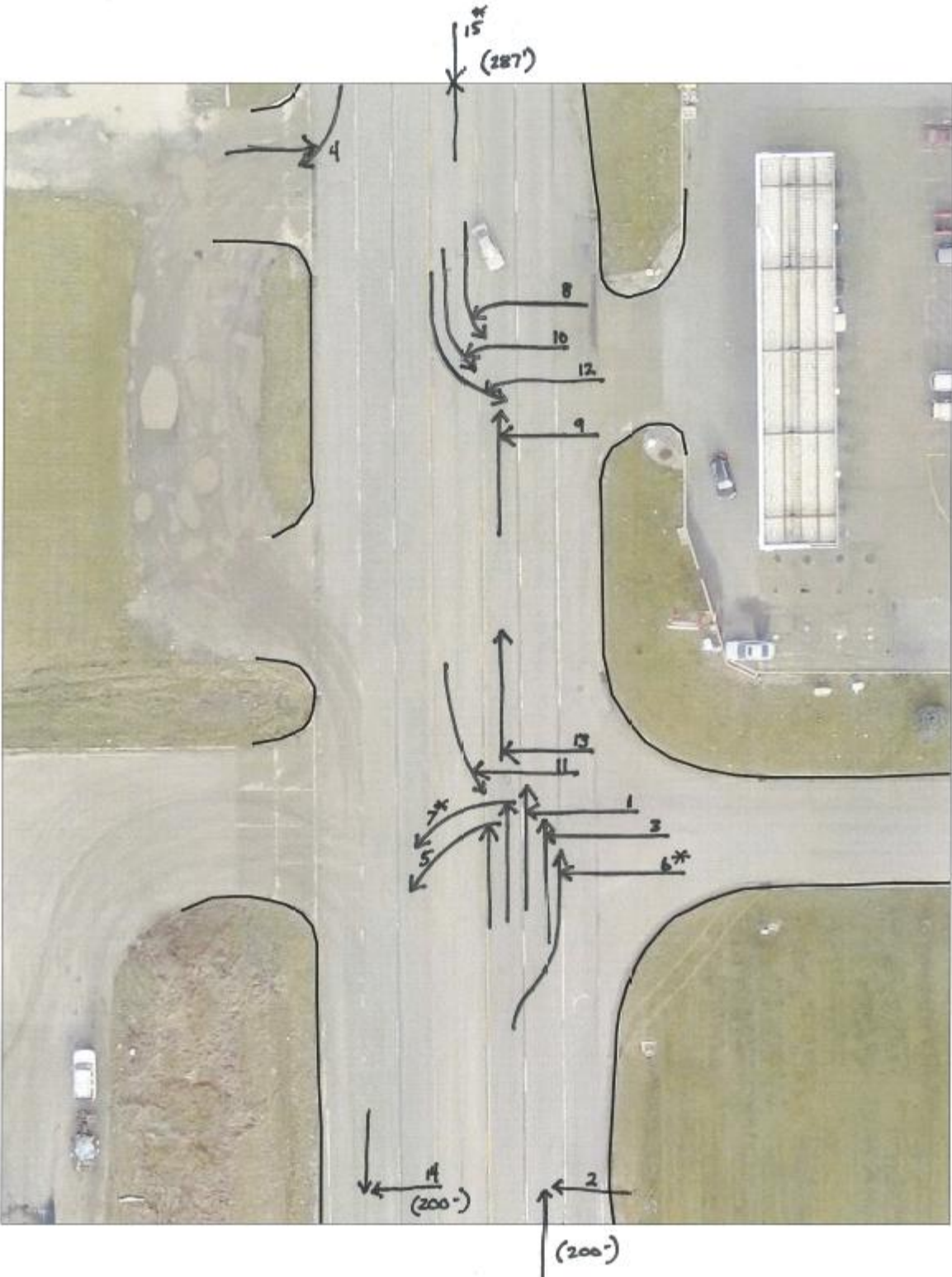


Location of Crashes (State Road 43 and Northgate Dr)





Crash Diagram



## Basic Crash Information

#	Date	Time	Vehicles Involved	Number Injured	Number Dead	Manner of Collision	Primary Factor	Light Condition	Weather Conditions	Surface Condition	Damage Estimate
1	4/3/2011	1413	2	0	0	Right Angle	FAILURE TO YIELD RIGHT OF WAY	DAYLIGHT	CLOUDY	DRY	\$10001 TO \$25000
2	4/30/2011	2350	1	0	0	Head On	ANIMAL/OBJECT IN ROADWAY	DARK (NOT LIGHTED)	CLEAR	DRY	\$1001 TO \$2500
3	5/6/2011	1406	2	0	0	Right Angle	FAILURE TO YIELD RIGHT OF WAY	DAYLIGHT	CLEAR	DRY	\$5001 TO \$10000
4	10/18/2011	1735	2	0	0	Left Turn	OTHER (ENVIRONMENTAL) - EXPLAIN IN NARR	DAYLIGHT	RAIN	WET	\$2501 TO \$5000
5	7/13/2012	1450	2	0	0	Right Angle	FAILURE TO YIELD RIGHT OF WAY	DAYLIGHT	CLEAR	DRY	\$2501 TO \$5000
6	8/7/2012	1710	2	1	0	Left Turn	FAILURE TO YIELD RIGHT OF WAY	DAYLIGHT	CLEAR	DRY	\$5001 TO \$10000
7	12/27/2012	0925	2	1	0	Other - Explain In Narrative	FAILURE TO YIELD RIGHT OF WAY	DAYLIGHT	CLEAR	DRY	\$5001 TO \$10000
8	3/7/2013	1527	2	0	0	Right Angle	FAILURE TO YIELD RIGHT OF WAY	DAYLIGHT	CLEAR	DRY	\$5001 TO \$10000
9	10/7/2013	1455	2	0	0	Left/Right Turn	FAILURE TO YIELD RIGHT OF WAY	DAYLIGHT	CLEAR	DRY	\$5001 TO \$10000
10	10/22/2013	1902	2	0	0	Right Angle	FAILURE TO YIELD RIGHT OF WAY	DARK (LIGHTED)	RAIN	WET	\$5001 TO \$10000
11	11/14/2013	1328	2	0	0	Left Turn	FAILURE TO YIELD RIGHT OF WAY	DAYLIGHT	CLEAR	DRY	\$1001 TO \$2500
12	12/17/2013	1730	2	0	0	Left/Right Turn	FAILURE TO YIELD RIGHT OF WAY	DARK (LIGHTED)	CLEAR	WET	\$2501 TO \$5000
13	4/30/2014	0645	2	0	0	Right Angle	FAILURE TO YIELD RIGHT OF WAY	DAWN/DUSK	CLEAR	DRY	\$10001 TO \$25000
14	3/19/2015	0509	1	0	0	Collision With Deer	ANIMAL/OBJECT IN ROADWAY	DARK (NOT LIGHTED)	CLEAR	DRY	\$5001 TO \$10000
15	9/21/2015	2030	2	1	0	Head On Between Two Motor Vehicles	OTHER (DRIVER) - EXPLAIN IN NARRATIVE	DARK (NOT LIGHTED)	CLEAR	DRY	\$5001 TO \$10000

Note: Highlighted crashes occurred when a vehicle was turning left onto State Road 43 from Northgate Drive

## Crash Summary, 2011-2015

<b>General</b>		
<b>Number of Crashes</b>	15	
<b>Property Damage Only</b>	12	80.0%
<b>Injury Crashes</b>	3	20.0%
<b>Fatalities</b>	0	

<b>Manner of Collision</b>		
<b>Right Angle</b>	6	40.0%
<b>Left Turn</b>	3	20.0%
<b>Left/Right Turn</b>	2	13.3%
<b>Collision With Deer</b>	1	6.7%
<b>Head On</b>	1	6.7%
<b>Head On Between Two Motor Vehicles</b>	1	6.7%
<b>Other - Explain In Narrative</b>	1	6.7%

<b>Primary Factor</b>		
<b>Failure To Yield Right Of Way</b>	11	73.3%
<b>Animal/Object In Roadway</b>	2	13.3%
<b>Other (Driver) - Explain In Narrative</b>	1	6.7%
<b>Other (Environmental) - Explain In Narr</b>	1	6.7%



<b>Light Condition</b>		
<b>Daylight</b>	9	60.0%
<b>Dark (Not Lighted)</b>	3	20.0%
<b>Dark (Lighted)</b>	2	13.3%
<b>Dawn/Dusk</b>	1	6.7%

<b>Weather Condition</b>		
<b>Clear</b>	12	80.0%
<b>Rain</b>	2	13.3%
<b>Cloudy</b>	1	6.7%

<b>Surface Condition</b>		
<b>Dry</b>	12	80.0%
<b>Wet</b>	3	20.0%

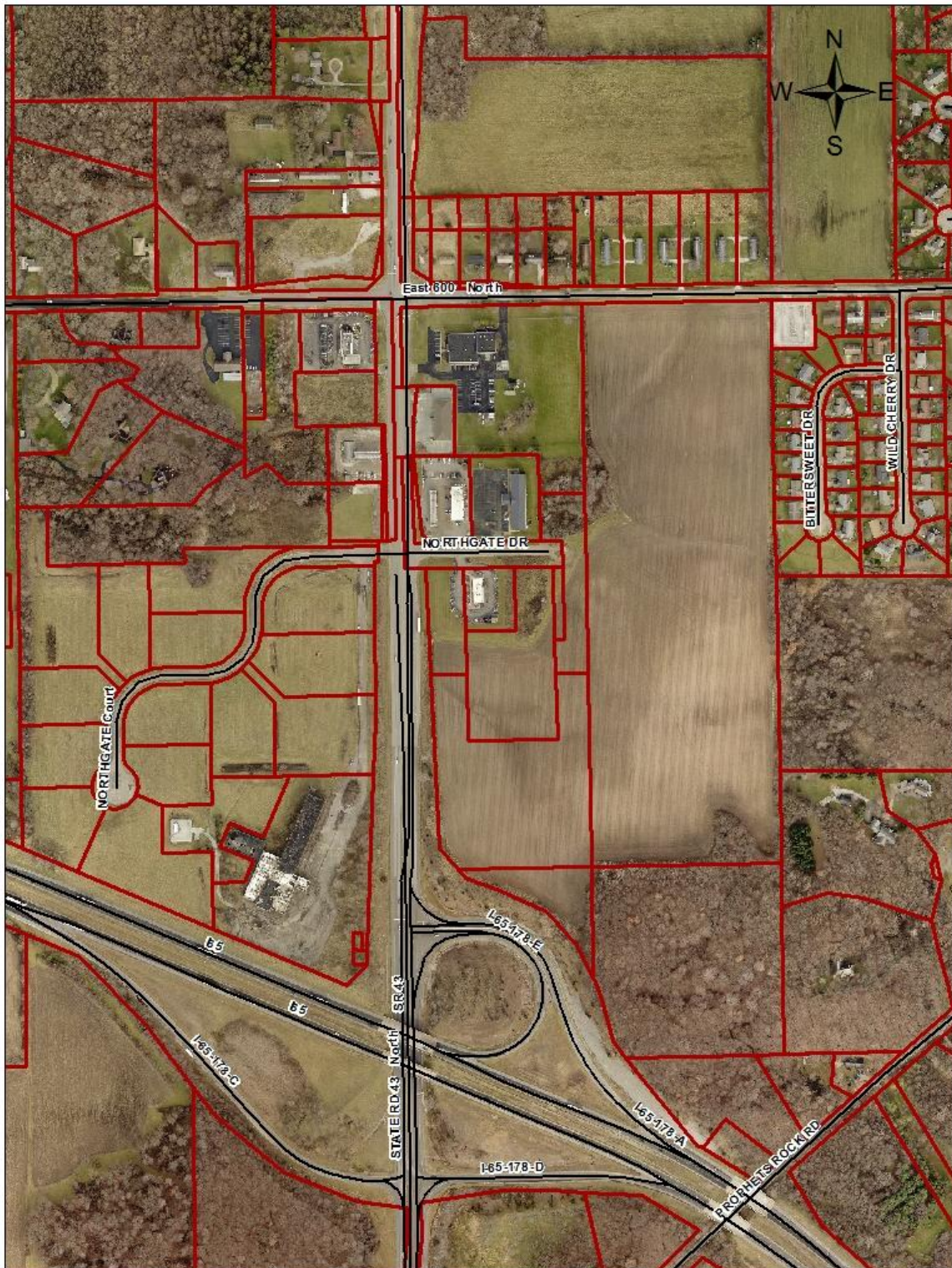
<b>Damage Estimate</b>		
<b>\$1,001 TO \$2,500</b>	2	13.3%
<b>\$2,501 TO \$5,000</b>	3	20.0%
<b>\$5,001 TO \$10,000</b>	8	53.3%
<b>\$10,001 TO \$25,000</b>	2	13.3%

## Crash Report Narrative Summaries

Crash Number	Narrative Summary
1	Vehicle turning left from Northgate Drive onto State Road 43. Hit another vehicle that was traveling on State Road 43, causing a right angle crash.
2	Deer ran in front of vehicle, driver was unable to stop in time to avoid a crash.
3	Vehicle turning left from Northgate Drive onto State Road 43. Hit another vehicle that was traveling on State Road 43, causing a right angle crash.
4	Vehicle on State Road 43 attempting to turn into gas station. Wet pavement caused vehicle to slide into another vehicle during the turn.
5	Vehicle turning left from Northgate Drive onto State Road 43. Hit another vehicle that was traveling on State Road 43, causing a right angle crash.
6	Vehicle turning left from Northgate Drive onto State Road 43. Hit another vehicle that was traveling on State Road 43.
7	Vehicle making left turn from Northgate Drive to State Road 43. Another vehicle may have partially blocked that driver's vision. While turning, the first vehicle hit a third vehicle, resulting in a crash.
8	Vehicle had just exited gas station onto State Road 43. Another vehicle tried to turn into the gas station, resulting in a right angle crash.
9	Vehicle had just exited gas station onto State Road 43. Another vehicle was obscured from vision due to a third vehicle slowing to turn into the gas station. The first two vehicles crashed into each other.
10	Vehicle turning left from gas station onto State Road 43. This vehicle hit a trailer being pulled by another vehicle already traveling on State Road 43.
11	Vehicle turning left from Northgate Drive onto State Road 43. Hit another vehicle that was traveling on State Road 43, getting ready to turn onto Northgate Drive.
12	Vehicle turning left into gas station from State Road 43. Hit another vehicle that was traveling on State Road 43.
13	Vehicle making left turn from Northgate Drive to State Road 43. While turning, that vehicle hit another vehicle, resulting in a right angle crash.
14	Deer ran in front of vehicle, driver was unable to stop in time to avoid a crash.
15	Motorcycle was waiting to make a left turn. Driver of another vehicle claims it was too dark to see the motorcyclist, resulting in a rear end crash.

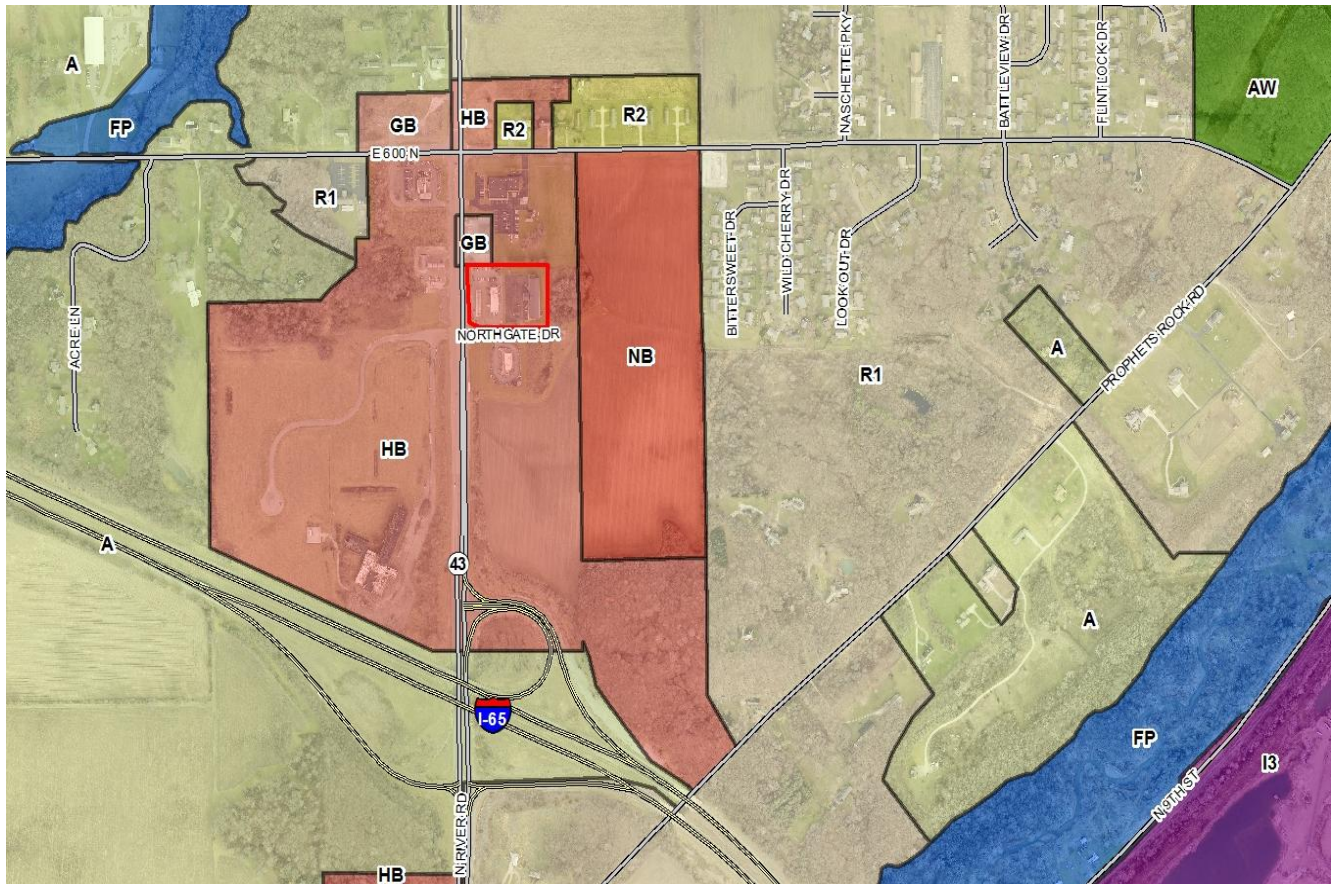
## Land Use Information

### Parcel Boundaries





## Zoning



## Safety Audit Observations

### **Sight Distance Issues**

-South of the site, semi trucks park on the northbound shoulder of State Road 43 and block the vision of vehicles turning from Northgate Drive.

-The intersection of State Road 43 and Northgate is at a lower elevation than State Road 43 in most of this area. There are hillcrests to the north and south of the intersection. This creates sight distance challenges in both directions.

### **Queuing Issues**

-During the summer months, vehicles tow boats up north to the lakes. Many of these vehicles stop for gas, and create queuing and space issues at the driveway to the station and also at the pumps.

-During peak times, there are instances where every pump is full. This can lead to vehicles stopping and queuing up on State Road 43 waiting to make a right turn into the station.

### **Speed and Stopping Issues**

-Traffic to and from Harrison High School (from 7:00 a.m. to 7:30 a.m. and 2:15 p.m. to 2:45 p.m.) can cause problems. With the two hillcrests near the site, buses may have issues being able to slow or stop near the site. Also, with many younger inexperienced drivers, there are issues with unsafe driver behavior as these drivers rush to and from the school.

-Speeds of southbound vehicles are high, even though the speed limit reduction from 55 mph to 45 mph is almost a mile north of this site (4,000 feet). Vehicles tend to travel as though speeds have not changed.

-North of the site, vehicles often violate the signal at County Road 600 N. This includes southbound semi trucks that do not feel they have enough time to stop, and proceed through the intersection at high speeds. They are often still traveling at these speeds when they pass over the hillcrest to the north of the site. This can lead to a dangerous situation for vehicles trying to turn from this site.

-Team members noted that in the fall, there are many trucks loaded with agricultural products in this area. These vehicles are heavily loaded, and have a hard time stopping quickly, which can lead to safety issues. One issue is that agricultural truck drivers are less experienced than over-the-road drivers.

## **Pavement Issues**

- The pavement markings on State Road 43 are fading or are no longer visible.
- There are no lane markings on Northgate Drive.
- There is no stop bar on Northgate Drive. The stop sign is set far enough back, that if vehicles actually stop at the sign, there are sight distance issues.
- There are drainage issues on Northgate Drive. On the day the audit was conducted, there was rain earlier in the day, and there was still some standing water on Northgate Drive during the audit.
- Pavement on Northgate Drive is starting to show some signs of structural issues. There are cracks and some potholes are beginning to form. With the anticipate increase in truck traffic, this may become a larger issue.

## **Traffic Flow and Access Control Issues**

- INDOT noted that the Interstate 65 northbound exit ramp onto State Road 43 (south of the site) has a high number of crashes. Delays from these crashes can lead to traffic flow issues in this area.
- Northgate Drive is currently a stub street. There is a vacant 16 lot commercial subdivision on the east side of State Road 43 that is expected to develop in the future. If development occurs as anticipated, this will lead to more traffic on Northgate Drive.
- With close spacing of State Road 43 driveway to Speedway and Northgate Drive, there can be some confusion about where a vehicle is turning. The right turn lane runs through the intersection with Northgate Drive. This can lead to crashes if a driver incorrectly assumes where another vehicle will turn.
- Access control is needed along State Road 43. There may be an opportunity to close some driveways when the area develops in the future.
- The State Road 43 pavement is very wide. A left turning vehicle from Northgate Drive has to cross four lanes of traffic to get into the nearest southbound lane.



## Safety Audit Recommendations\*

### **Sight Distance Issues**

-Install cross-hatching and additional “No Parking” signs on the northbound shoulder of State Road 43. This will reduce instances of vehicles parking on State Road 43 and would increase the sight distance of vehicles turning from Northgate Drive.

### **Queuing Issues**

-Move the driveway northward for the Speedway on State Road 43 to align with the driveway across the street at the Phillips 66 gas station.

### **Speed and Stopping Issues**

-After the site develops, the audit team recommended a different and more intense intersection treatment. There are a couple of options for this treatment. 1) A traffic signal at the intersection of State Road 43 and Northgate Drive. 2) A roundabout. The team noted that there would be some similarities between a roundabout at this site and the roundabout at Old State Road 25 and State Road 25 in northeastern Tippecanoe County. That roundabout is also close to an interchange with Interstate 65, and it has driveways for the surrounding land uses in close proximity to the roundabout. That site could be studied and used as an approximate model for a roundabout at this site. The team believes that a roundabout is the safer option to reduce crashes in the long term.

### **Pavement Issues**

-Paint a stop bar and pavement lane markings on Northgate Drive. This will help with traffic operations.

\* For a response to the audit recommendations, see Appendix 3.

## **Traffic Flow and Access Control Issues**

-Install a raised concrete “pork chop” island on Northgate Drive. This would increase safety in a few ways. 1) It would separate traffic movements. 2) It would reduce the distance vehicles need to make a left turn. 3) It would keep through traffic out of the right turn lane at the intersection of State Road 43 and Northgate Drive (See Appendix 1 for rough sketch).

-Re-align the drive-thru for the Taco Bell on the site (along with moving the driveway on State Road 43) could make it easier for customers to get into the drive-thru. Some of the current concrete parking islands would likely need to be moved or re-configured to accommodate these changes. By changing traffic patterns, there will be fewer vehicles circulating around the building. This will reduce future potential pedestrian crashes when new doors are added on the east side of the building.

-Provide a southbound left turn lane into Northgate Drive.

-Change the configuration of the two way center left turn lane to dedicated left turn lanes between Interstate 65 and County Road 600 N.

## **Future Development Issues**

-There are currently two vacant driveways on the west side of State Road 43, across from this site. One of those two driveways should be closed. The other should be converted to a right in/right out driveway.

-When the site with the vacant driveways develops, Northgate Drive should be improved and the main access to that site should be from Northgate Drive.

### Other Comments by Safety Audit Team

-Gary Bowser explained that the number of crashes in the 5 years of crash data were within their expectations for the number of crashes on a state highway in a location like this.

-Gary Bowser told the audit team that INDOT had some plans to address the issue with crashes on the northbound off ramp for Interstate 65 (south of this site). This ramp is currently controlled by signage. He said a traffic signal at the ramp would be installed as a temporary measure. Eventually, INDOT plans to modify the Interstate ramp configuration if they can get the funding approved for that project. That may help traffic flow in this area as it continues to develop.

-Laura Slusher noted that in 2013, there were 5 crashes in this area. If you consider this area as one site, it meets one of the requirements of warrant 7 in the IMUTCD for a traffic signal. However, it does not completely meet the requirements of this warrant. Additionally, just because a location meets a warrant for signal, it does not mean that a signal has to be installed.

-Tom McKee said that the configuration of the center lane changes near the Indiana State Police Post. South of the post, it is a two way center left turn lane. Starting at the post, it changes to a northbound left turn only lane.

-Tom McKee stated that the state police often have to enforce the "No Parking" regulation in the southbound turn lanes into businesses on the west side of State Road 43.

-The team discussed and rejected alternative access driveway options to the west of the McDonald's.



## Safety Audit Field Pictures



Northwest of the entrance to vacant parcel, looking north on State Road 43



On Northgate Drive, looking west at truck turning left off of State Road 43



At driveway for Speedway, looking west along Northgate Drive





At northeast corner of intersection of Northgate Drive and State Road 43, looking west





At northeast corner of intersection of Northgate Drive and State Road 43, looking north on State Road 43



At northeast corner of intersection of Northgate Drive and State Road 43, looking south on State Road 43



At northeast corner of intersection of Northgate Drive and State Road 43, looking at a vehicle preparing to turn right onto State Road 43





At northwest corner of intersection of Northgate Drive and State Road 43, looking east along Northgate Drive





At Wendy's driveway on Northgate Drive, looking east along Northgate Drive



At Wendy's driveway on Northgate Drive, looking northwest at Speedway gas station



At Wendy's driveway, looking at the driveway to Speedway





At southeast corner of intersection of Northgate Drive and State Road 43, looking north at driveway to Speedway on State Road 43



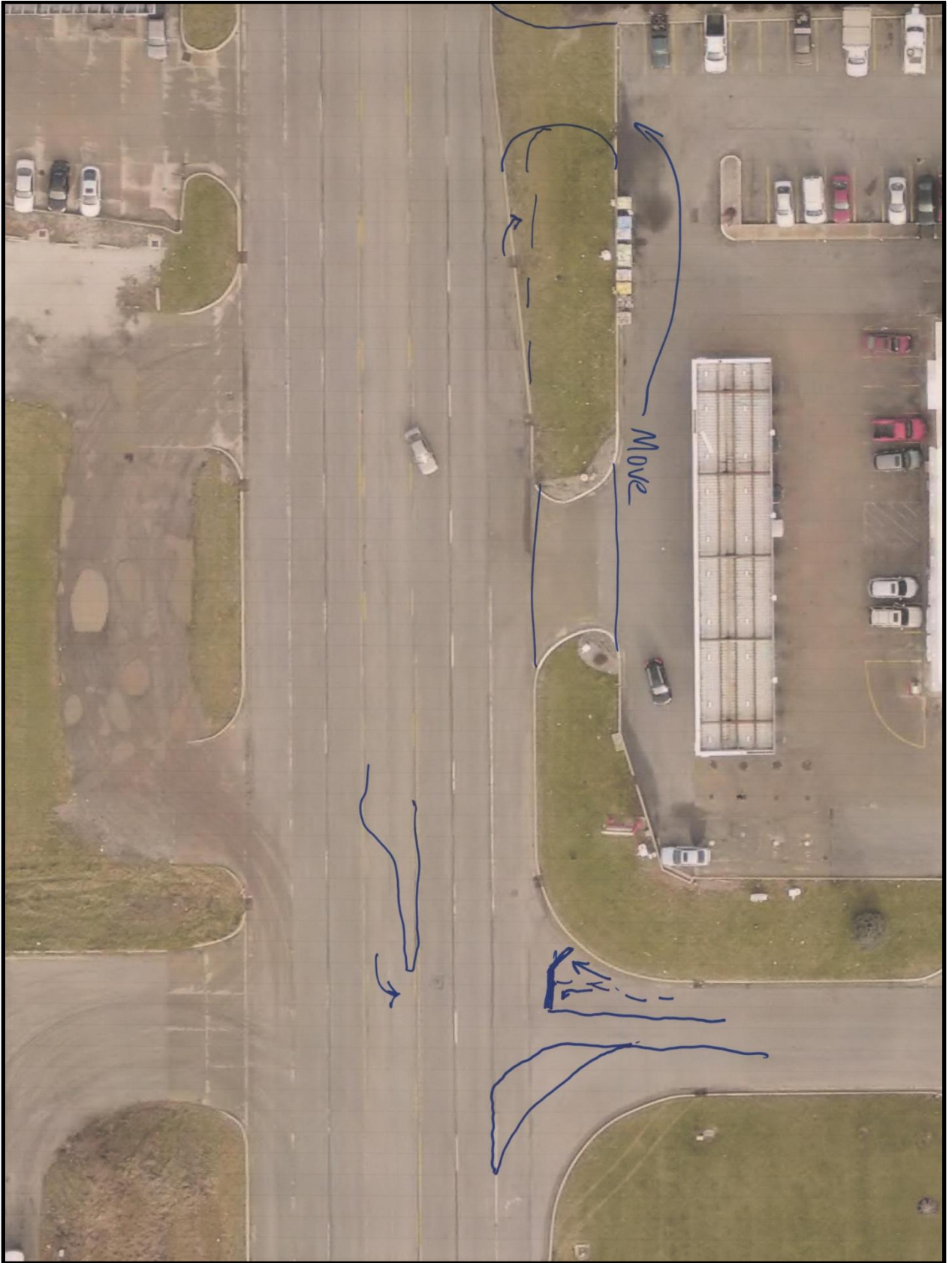


Vehicle turning left (southbound) on State Road 43 from Speedway gas station



Part of the RSA team preparing to discuss the observations they made on site

Appendix 1  
Access Control Rough Sketch





Appendix 2  
Field Prompt Sheet

### Traffic Operations

Do vehicles queue at the intersection waiting for gaps in traffic?

Do vehicles queue waiting to get into or out of the access points?

Do vehicles queue at any other location near the site?

Do conditions exist where stopped vehicles may obstruct the view of other vehicles?

Do conditions exist where stopped vehicles may obstruct pedestrians from view?

Yes	No	Maybe	N/A

### Safety

Are there conflicts between vehicles coming from the access points and vehicles in the roadway?

Is the sight distance adequate for turning vehicles?

Are sight lines obstructed by signage, vegetation, etc.?

Are vehicles consistently exceeding the posted speed limit in this area?

Do vehicles exhibit any other unsafe behaviors?

Is there a safe route for pedestrians and bicyclists to access adjacent land uses?

Do pedestrians or bicyclists exhibit any unsafe behaviors?

Yes	No	Maybe	N/A

### Signage and Pavement Markings

Inadequate visibility of signs

Incorrect location, offset, and height of signs

Signage does not meet specifications

Signs are not properly maintained

Pavement is not clearly marked

Pavement is excessively marked

Turn lanes are not clearly marked with appropriate symbols

Stop bars are not clearly marked and visible

Yes	No	Maybe	N/A

### Comments

Appendix 3  
Speedway's Response to Audit

## **Response to Tippecanoe Road Safety Audit**

At this time we would like to thank the Tippecanoe County Transportation Planner for his efforts to make Speedway 8064 a safe location for all who travel S.R.43.

In regards to the Safety Audit Recommendations, Speedway would like to provide the following feedback:

### ***Site Distance Issues***

- Speedway agrees with the additional “No Parking” signage proposed for S.R.43 as recommended.

### ***Queuing Issues***

- Speedway does not agree with the relocation of the existing drive along S.R. 43. The relocation of this drive would cause considerable congestion within the property causing issues with the Taco Bell drive thru as well as circulation around the existing Fuel Canopy. Speedway is considering the addition of an additional fuel dispenser to the North.

### ***Speed and Stopping Issues***

- Speedway does agree with the installation of a traffic signal at this intersection and would agree to help pay for this traffic signal. With the counties benefit of this signal for future development in this area Speedway does not feel that they should be solely financially responsible for the installation of this signal. During Speedway’s due diligence period for this project a traffic light study was completed with the Indiana Department of Transportation recommendation that no signal would be required for this intersection.
- Speedway does not agree with the recommendation that a Roundabout be constructed at this location. This could cause confusion as to where Speedway customers are to exit causing traffic congestion within the property.

### ***Traffic Flow and Access Control Issues***

- Speedway agrees with the installation of a raised “pork chop” island along Northgate drive along with the installation of painted stop bars and lane markings. Again Speedway does not feel that they should be completely financially responsible for the installation of these items.
- Speedway does not agree with the relocation of the existing drive along S.R. 43. The relocation of this drive would cause considerable congestion within the property causing issues with the Taco Bell drive thru as well as circulation around the existing Fuel Canopy. Speedway is considering the addition of an additional fuel dispenser to the North. Please note that the circulation around the building will not be available once the CFL has been completed.
- Speedway does agree with the re-configuration of the pavement markings along S.R. 43 to incorporate a dedicated left turn lane.